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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,095	10/09/2003	Tadashi Kondo	10517/184	8119

23838 7590 08/17/2006

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EXAMINER
AVERY, BRIDGET D

ART UNIT	PAPER NUMBER
3618	

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/681,095	Applicant(s) KONDO ET AL.	
	Examiner Bridget Avery	Art Unit 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 22 May 2006.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-33 is/are pending in the application.
  4a) Of the above claim(s) 3,6,10,11,16-18,21-25 and 29-32 is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) 1,2,4,5,7-9,12-15,19,26-28 and 33 is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  a)☐ All b)☐ Some * c)☐ None of:
    1.☐ Certified copies of the priority documents have been received.
    2.☐ Certified copies of the priority documents have been received in Application No. _____.
    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date see office action.
4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species I (Figures 1-6) in the reply filed on May 22, 2006 is acknowledged.

2. Claims 3, 6, 10, 11, 16-18, 21-25 and 29-32 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on May 22, 2006.

3. An action on the merits of claims 1, 2, 4, 5, 7-9, 12-15, 19, 26-28 and 33 follows.

4. The Information Disclosure Statements filed by applicant on 12/21/05, 7/22/05, 5/03/05, 3/23/04 and 10/09/03 are acknowledged and have been considered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 2, 19 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (US Patent 2,090,768).

Thomas teaches an exhaust pipe structure similar to applicant's including: an exhaust passage (defined by pipe 112) below a floor of a vehicle; an engine (clearly shown in Figure 7); at least one muffler (117) on an intermediate portion of the exhaust passage (formed by pipe 112); the at least one muffler (117) being a main muffler having a capacity defined by an external cylinder with a circular sectional shape forming an outer shell portion. Re claim 19, the muffler is expanded in comparison to the exhaust pipe (112).

Thomas lacks the teaching of the muffler having an external cylinder that has a circular sectional shape having a diameter of 100 mm to 150 mm, a cylinder length of 800 mm to 1200 mm and a sectional area perpendicular to a direction of an axis of the external cylinder that is in the range of 2500.pi. mm.sup.2 to 5625.pi. mm.sup.2.

The provision of a muffler having an external cylinder that has a circular sectional shape having a diameter of 100 mm to 150 mm, a cylinder length of 800 mm to 1200 mm and a sectional area perpendicular to a direction of an axis of the external cylinder that is in the range of 2500.pi. mm.sup.2 to 5625.pi. mm.sup.2 is a modification that would have involved a mere change in size of a component. A change in size is generally recognized as being within the level or ordinary skill in the art.

6. Claims 1, 2, 4, 5, 7, 12, 13, 15, 19 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steenackers et al. (US Patent 6,260,652).

Steenackers et al. teaches an exhaust pipe structure similar to applicant's including: an exhaust passage (117) below a floor of a vehicle; an engine (106); at least one muffler (122) on an intermediate portion of the exhaust passage (117); the at least one muffler (122) being a main muffler having a capacity defined by an external cylinder with a circular sectional shape forming an outer shell portion. Re claim 19, the muffler is expanded in comparison to the exhaust pipe (117). Re claims 4 and 5, see the tunnel formed by floor 4 in Figure 4. Re claim 7, see reinforcement (62). Re claim 12, see joint (118), and first cross member (61 as shown in Figure 4) on catalytic converter (151). See also Figure 6 for the other features described above.

Steenackers et al. lacks the teaching of the muffler having an external cylinder that has a circular sectional shape having a diameter of 100 mm to 150 mm, a cylinder length of 800 mm to 1200 mm and a sectional area perpendicular to a direction of an axis of the external cylinder that is in the range of 2500.pi. mm.sup.2 to 5625.pi. mm.sup.2.

The provision of a muffler having an external cylinder that has a circular sectional shape having a diameter of 100 mm to 150 mm, a cylinder length of 800 mm to 1200 mm and a sectional area perpendicular to a direction of an axis of the external cylinder that is in the range of 2500.pi. mm.sup.2 to 5625.pi. mm.sup.2 is a modification that would have involved a mere change in size of a component. A change in size is generally recognized as being within the level or ordinary skill in the art.

7. Claims 1, 2, 4, 5, 7, 12, 13, 15, 19, 26 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorg Alexnat et al. (US Patent 6,058,702).

Jorg Alexnat et al. teaches an exhaust pipe structure similar to applicant's including: an exhaust passage (formed by pipe 212) below a floor of a vehicle; an engine (206); at least one muffler (222) on an intermediate portion of the exhaust passage (formed by pipe 212); the at least one muffler (222) being a main muffler having a capacity defined by an external cylinder with a circular sectional shape forming an outer shell portion. Re claim 19, the muffler (222) is expanded in comparison to the exhaust pipe (212). Re claim 4, see the tunnel formed by the floor (4) in Figure 7. Re claim 7, see reinforcement member (87). Re claim 12, see joint (218) and cross members (243) on the catalytic converter (219).

Jorg Alexnat et al. lacks the teaching of the muffler having an external cylinder that has a circular sectional shape having a diameter of 100 mm to 150 mm, a cylinder length of 800 mm to 1200 mm and a sectional area perpendicular to a direction of an axis of the external cylinder that is in the range of 2500.pi. mm.sup.2 to 5625.pi. mm.sup.2.

The provision of a muffler having an external cylinder that has a circular sectional shape having a diameter of 100 mm to 150 mm, a cylinder length of 800 mm to 1200 mm and a sectional area perpendicular to a direction of an axis of the external cylinder that is in the range of 2500.pi. mm.sup.2 to 5625.pi. mm.sup.2 is a modification that would have involved a mere change in size of a component. A change in size is generally recognized as being within the level or ordinary skill in the art.

8. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas ('768) in view of Sato et al. ('491).

Thomas teaches the features described above but is silent regarding the position of the fuel tank.

Sato et al. teaches a fuel tank positioned at the rear of the vehicle.

Based on the teachings of Sato et al., it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to place the fuel tank at the rear of the Thomas vehicle to effectively cool the tank during running of the vehicle.

9. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steenackers et al. ('652) in view of Sato et al. ('491).

Steenackers et al. teaches the features described above but is silent regarding the position of the fuel tank.

Sato et al. teaches a fuel tank positioned at the rear of the vehicle.

Based on the teachings of Sato et al., it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to place the fuel tank at the rear of the vehicle in Steenackers et al. to effectively cool the tank during running of the vehicle.

10. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorg Alexnat et al. (US Patent 6,058,702) in view of Sato et al. ('491).

Jorg Alexnat et al. teaches the features described above but is silent regarding the position of the fuel tank.

Sato et al. teaches a fuel tank positioned at the rear of the vehicle.

Based on the teachings of Sato et al., it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to place the fuel tank at the rear of the vehicle in Jorg Alexnat et al. to effectively cool the tank during running of the vehicle.

11. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steenackers et al. ('652) in view of Kida (US Patent 6,279,965).

Steenackers et al. teaches the features described above but lacks the teaching of a seal ring.

Kida teaches a joint with sealing ring.

Based on the teachings of Kida, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to replace the joint of Steenackers et al. to that of Kida permit a variation between the relative angle of the exhaust elements.

12. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorg Alexnat et al. (US Patent 6,058,702) in view of Kida ('965).

Jorg Alexnat et al. teaches the features described above but lacks the teaching of a seal ring.

Kida teaches a joint with a sealing ring.

Based on the teachings of Kida, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to replace the joint of Jorg Alexnat et al. to that of Kida to permit a variation between the relative angle of the exhaust elements.

13. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steenackers et al. (US Patent 6,058,702) in view of Kempka et al. (US Patent 6,158,214).

Steenackers et al. teaches the features described above but lacks the teaching of the catalytic converter being combined with the muffler.

Kempka teaches a muffler with a catalytic converter positioned therein.

Based on the teachings of Kempka, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to replace the separate exhaust elements with the combined muffler and catalytic converter to conserve space.

14. Claims 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jorg Alexnat et al. (US Patent 6,058,702) in view of Kempka et al. (US Patent 6,158,214).

Jorg Alexnat et al. teaches the features described above but lacks the teaching of the catalytic converter being combined with the muffler.

Kempka teaches a muffler with a catalytic converter positioned therein.

Based on the teachings of Kempka, it would have been obvious to one having ordinary skill in the art, at the time the invention was made, to replace the separate exhaust elements with the combined muffler and catalytic converter to conserve space.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Foster shows an exhaust repair kit for exhaust system and methods therefor.

Okubo et al. shows a lubricating system for engines.

Abramson et al. shows an exhaust system for vehicle internal combustion engine.

Sturt et al. shows a muffler and motor vehicle frame.

16. Any inquiry concerning this communication should be directed to Bridget Avery at telephone number 571-272-6691.

Bridget Avery
Avery
July 26, 2006

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